

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

May 15, 2006

In re application of : Robert M. Carmichael  
Serial No. : 09/730,116  
Filed : December 5, 2000  
For : **ACTIVE CONTROL RELEASABLE BALLAST  
SYSTEM FOR USE WITH DIVE EQUIPMENT**  
Examiner : Ajay Vasudeva  
Art Unit : 3617  
Our File No. : 1010.6817

DECLARATION OF ROBERT M. CARMICHAEL

Robert M. Carmichael, the applicant in the above-identified patent application, declares as follows:

1. I am the applicant for the above-identified application.
2. I am co-owner of Halcyon Manufacturing, Inc. ("Halcyon") and on and before August 22, 2000, I was the President, CEO and sole owner of Halcyon.
3. Sometime in late 1999, well before July 31, 2000, I conceived of an Active Control Ballast system ("System"), using a side release buckle for dropping and controlling the release of weights from dive gear. The System corresponds to the invention claimed in the above-identified application. By earlier exhibits I have attached illustrations of certain embodiment(s) of my claimed invention from the Halcyon website and from hand drawings for the various embodiments of the System solely invented by me.
4. By this declaration I am attaching further documentation which shows my conception of the claimed invention in 1999. These documents came from the files of one of my company's employees (Roslinda Leilani Akimsue) and represent production notes and drawings for my claimed Active Control Ballast invention. Miss Akimsue (now Mrs. Essa) is still an employee of my company.

5. The first two pages are respectively dated December 6, 1999 and December 8, 1999 (See Composite Exhibit A). Miss Akimsue initials appear at the top of the December 8<sup>th</sup> document as "RLA". A lot of my company's products involve sewing and Miss Akimsue is the head of the

sewing division. Given Miss Akimsue's great skills, I often involve her at the outset of new company projects invented by me with respect to drawing, sewing, and fabric cutting issues. As is typical with the nature of a lot of my inventions, I used Miss Akimsue's expert skills at or near the time of the conception of the claimed invention to assist in the building of a working prototype for the claimed invention. The various numbers and dimensions appearing on the December 8<sup>th</sup> document are Miss Akimsue's notes regarding sew lines, cut lines, lengths, etc.

6. As previously referenced in earlier Declarations, I also disclosed my invention, represented by the current pending claims, to representatives of ScubaPro in December 1999 under a confidentiality agreement to determine whether ScubaPro had any interest in entering into a business relationship with respect to this invention.

7. A prototype for one embodiment of the claimed invention was displayed in Halcyon's January 2000 DEMA trade show.

8. From my conception and through at least most of the year 2000, my company continued to fine tune the claimed invention, which is represented by composite Exhibit B showing various production notes throughout the year 2000 for the claimed invention.

9. These documents also illustrate my diligence with respect to the claimed invention.

10. As I have previously declared, all critical dates regarding conception and actual reduction to practice for all embodiments of my claimed invention occurred prior to July 31, 2000.

11. As I have repeatedly declared, I am the sole inventor of all subject matter claimed in my pending application, which was conceived and reduced to practice prior to July 31, 2000.

12. I incorporate by reference my previous Declarations filed in this Application.

13. By this Declaration I declare, under penalty of perjury, that the exhibits previously submitted with the Stella affidavit that refer to a quick disconnect release system is the same invention as I am claiming. Additionally, the side release buckle is clearly seen on the weight pocket in both pages of Stella Exhibit A. Thus, the Stella Exhibit does show a side release system, contrary to the Examiner's comments in the most recent Office Action.

14. Accordingly, the citation of U.S. Patent No. 6,527,480 under Section 102(e) is believed to be improper against my unique and novel invention and I again respectfully ask that this citation be withdrawn by the Examiner and the claims pending in my application be allowed by the

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Patent Office.

I declare further that all statements made herein of my own knowledge are true; that all statements made herein on information and belief are believed to be true; and further that these statements were made with the knowledge that willful, false statements and the like are punishable by fine or imprisonment, or both, under §1001 of Title 18 of the United States Code and that such willful, false statements may jeopardize the validity of this application and any registration resulting therefrom.

Respectfully submitted,



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ROBERT M. CARMICHAEL  
Applicant

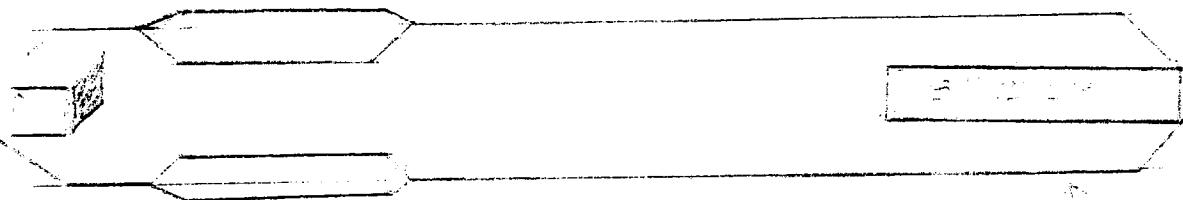
## **EXHIBIT A**

ML - 2 4 WEB BEST

12-6-99

32

ML - 2 4



32" ML-2 4

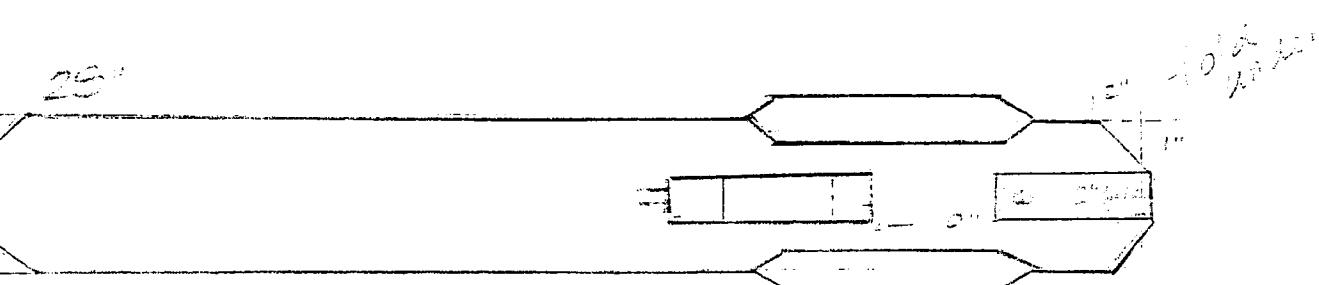
WEB BEST  
POCKET PLACEMENT

NEEDLE HOLE

32" ML-2 4  
WEB BEST

42

42" ML-2 4



42

10 1/2"

ML-2 4  
WEB BEST  
42" ML-2 4

42" ML-2 4

WEB

POCKET PLACEMENT

Female ML-2 4 web best

Male ML-2 4 web best

12" ML-2 4 web best

4" WEB DMC-A

12-8-99

RIA

RIGHT SIDE BELT

7474 4" BLK. NY. WEB .773  
28"

2" BLK. NY. WEB .825  
(2) 11", 8"

1009 2" ELASTIC .823  
12"

M100HK 3" HOOK .35  
6 1/2", 6"

M100LP 3" LOOP .6  
2 1/2"

DWP W/ DWP - PULL-OUT

SR-2 (M) MALE END 2" BUCKLE

LEFT SIDE BELT

7474 4" BLK. NY. WEB 6.1  
38"

2" BLK. NY. WEB .775  
(2) 11" (2) 6"

M100HK 3" HOOK .151  
6 1/2"

M100LP 3" LOOP 6.1  
8", 3 1/2"

SR-2 (F) FEMALE END 2" BUCKLE (2)  
DWP W/ DWP - PULL OUT

Change of 2001/02  
Change of 2 rows of  
3" hook & front  
to Veto P  
11-02

## **EXHIBIT B**

4" WEB DMC-A

7-12-00

RIGHT SIDE BELT

7474	<u>4" BLK. NY. WEB</u>	.778
	38"	
9803	<u>2" BLK. NY. WEB</u>	.833
	(2) 11", 8"	
1009	<u>2" ELASTIC 12"</u>	.333
ELPHIC	<u>1 1/2" HOOK</u>	.7
2	(2) 6 1/2", (2) 6"	
ZPLIC	<u>1 1/2" LOOP</u>	1.194
	(2) 2 1/2	

DWP W/ DWP - PULL

R-2(M) MALE END 2" BUCKLE

LEFT SIDE BELT

7474	<u>4" BLK. NY. WEB</u>	1.1
	38"	
9803	<u>2" BLK. NY. WEB</u>	.778
	(2) 11", (2) 6"	
ELPHIC	<u>1 1/2" HOOK</u>	.301
	(2) 6 1/2"	
ZPLIC	<u>1 1/2" LOOP</u>	2.194
	(2) 8", (2) 3 1/2"	

R-2 (F) (2) FEMALE END 2" BUCKLE

DWP W/ DWP - PULL

4" WEB DWC-A

9-13-00

LEFT SIDE BELT

4" BLK. NY. WEB 1.050

38"

7803 2" BLK. NY. WEB 1.639

11", (2) 6"

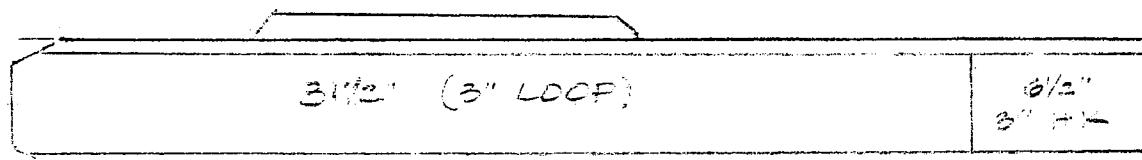
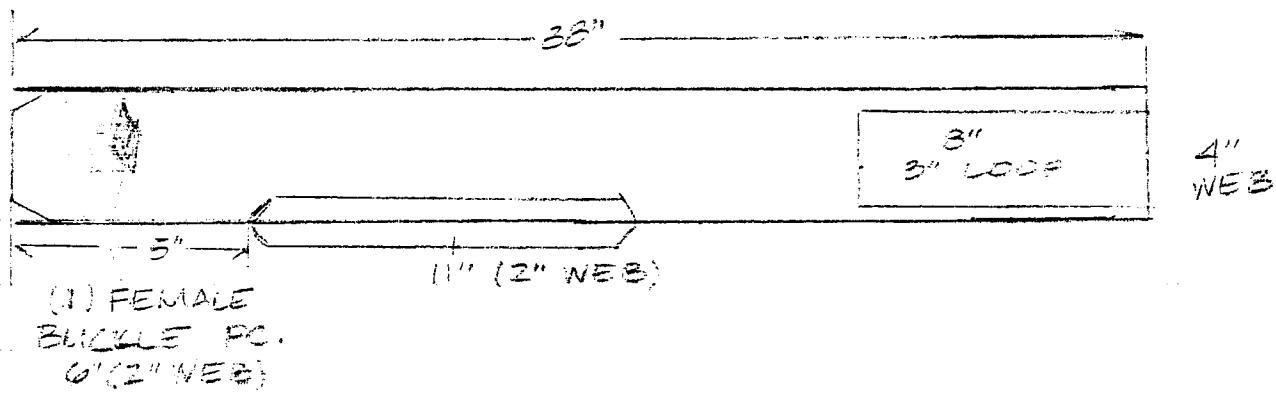
2P43 3" HOOK .181

6 1/2"

ZPC 3 3" LOOP 1.097

8", 3 1/2"

SR-2 (2) FEMALE END 2" BUCKLE



4" WEB DMC-A

9-13-00

RIGHT SIDE BELT

4" BLK NY WEB .779  
28"

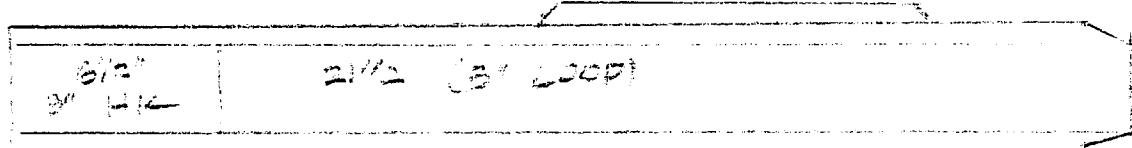
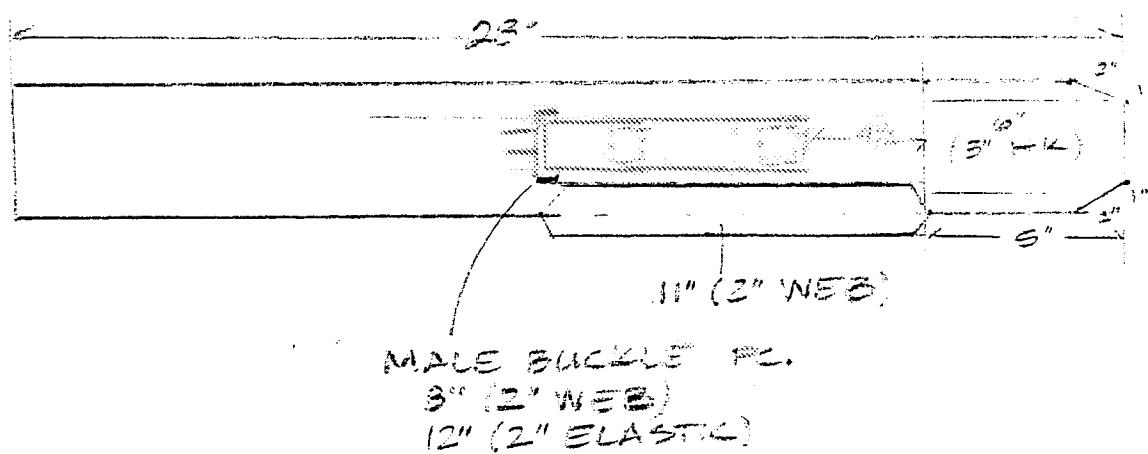
9803 2" BLK NY WEB .525  
11", 8"

1009 2" ELASTIC .333  
12"

ELPH3 3" HOOK .347  
6 1/2", 6"

ELPL3 3" LOOP .597  
21 1/2"

SL-2 MALE END 2" BUCKLE



JEN 12-15-00

DNP W/ Adj. Remake

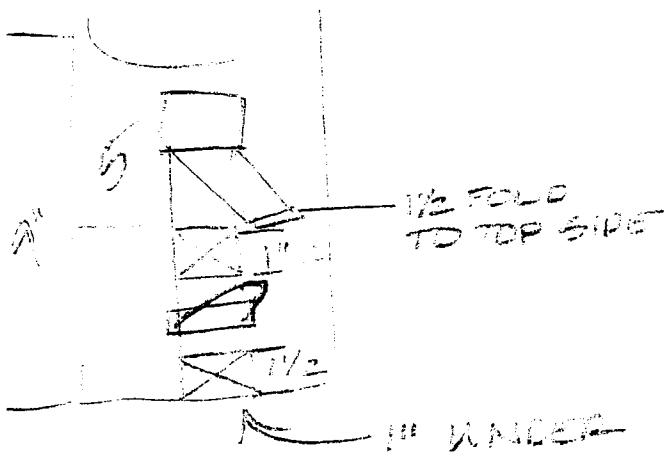
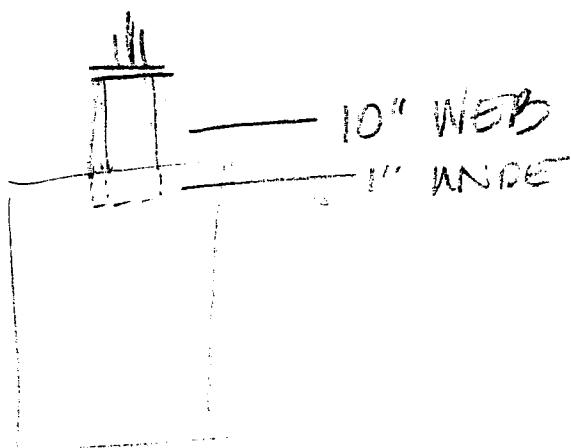


Diagram  
10" WEB  
13" 2" WEB



JTC 2" BUCKLE  
~~# 5018 M~~

~~# 5018 S~~  
# 6405 M  
# 6426 F

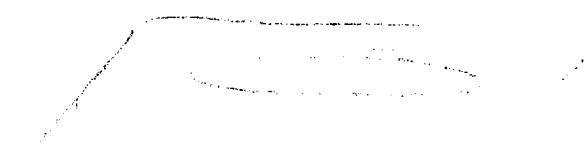
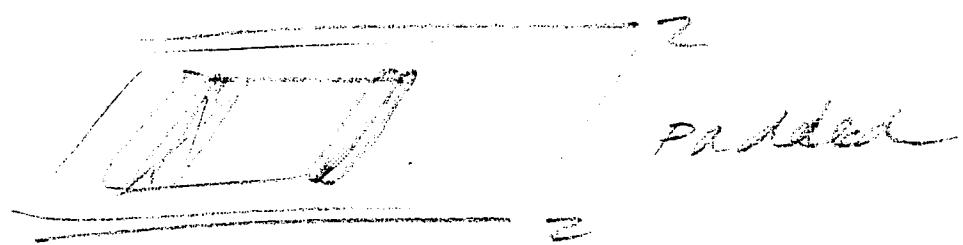
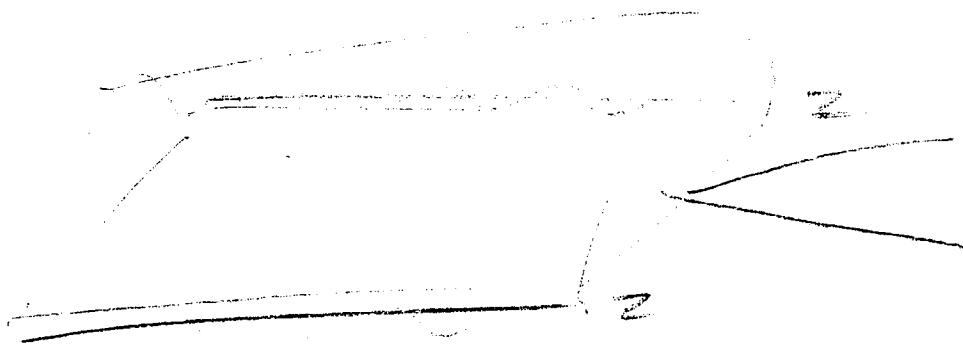
PULL-OUT POCKET  
BACK P/N

DNC-4 w/ Pockets  
(F) Adj.

12-15-00

Eliminate Front (F) Buckle

2" D-Ring (Blaze)  
2 1" Straps w/ Red Web



"Warm Water" DWP - Pull-out (pair)

12-18-00

4" BELT W/ POCKET

12-26-00

RIGHT SIDE BELT

1474 4" WEB .78

28"

1803 2" WEB .53

11", 8",

009 2" ELASTIC .33

12"

PE 3 3" HOOK .35

6", 6 1/2"

PL 3 3" LOOP .6

2 1/2"

DR 2 MALE END 2" BUCKLE10/10/00  
DR 2

4" BELT W/ POCKET

12-26-00

LEFT SIDE BELT

7474 4" WEB 1.06

38"

9803 2" WEB .5

11", 7"

LPH3 3" HOOK .181

6 1/2"

LPL3 3" LOOP 1.10

8", 3 1/2"

122 FEMALE END 2" Buckle

# POCKET (4" BELT LEFT & RIGHT)

12-26-00

EN23

EN29

BLUE OR RED

.102

(2) 10X11

3035 1" SCUBA WEB .56

(2) 10"

0020 1/2 SCUBA WEB .42

(2) 7 1/2"

9303 2" WEB .72

(2) 13"

818 1" G.G TAPE .611

(2) 11"

(2) 2" SIS TRIGLIDE

JFC (2) 2" SIS D-RING

406 (2) 2" BUCKLE (MALE ADJ.)

7478 2" MIL-SPEC WEB .306

(2) ~~11~~ 5 1/2" (2) 3"

(2) DW PLATE - POCKET

## DWC-4 EGRESS SLEEVE

XE ADD-ON FRONT 12-18-02

(1) BROWNIE PATCH

421 BLACK CORDURA .023  
5X10TWD6 BLACK TEXTILENE .023  
5X10P20 BLACK 420D NYLON .05  
10 X101619 1" M/S WEB .69  
25"1478 2" M/S WEB .56  
(2) 10"PH2 2" HOOK .28  
10"PL2 2" LOOP .28  
10"1100HK 1" HOOK .14  
5"1140LP 1" LOOP .14  
5"803 2" WEB .12  
4 1/43464 1" RED WEB .11  
4"2-0100- 1" FENDLE END BUCKLE1818 1" G.G. TAPE 1.93  
(3) 12", 20, 10~~1100~~ 10" #8 SEP ZIP

## DWC-4 SLEEVE (BASIC)

12-18-00

P20 BLACK 420D NYLON .051  
11 X 10

20022 1/2" CC FOAM .010  
3 1/2 X 8 1/2

(1) (E) 10" # SEP. ZIP

74174 4" WEB .167  
(2) 3"

4310 4" ELASTIC .222  
8"

(3) 4" SK LOOPS

421 BLACK CORDURA .051  
11 X 10

BTL Patch

1818 1" G.G. TAPE .07  
24"

4604 1" RED WEB .111  
4"  
-nins 1" DOMINIC. END BRACKETS

"Warm Water" DWP - Pull-out (pair)

12-18-00

EN 21	Black Cordura	.158		
	(2) 7X13			
	(2) 5X16			
ELPH 2	2" HOOK	.89		
	(2) 16"			
ELPL 2	2" LOOP	.79		
	(2) 14"			
ZB15	1" GG Tape	2.5		
	(2) 24 <sup>(2)</sup> /13 <sup>(2)</sup> /6			
	(2) DW PLATE - PULL			
574-13	2" MIL-Spec. Web	.50		
	(2) 10"			
2405	<del>2" 1/2" END BRACKLE</del>			